

Reply to Office Action of September 16, 2005

AMENDMENTS TO THE ABSTRACT

Please substitute the following paragraph for the abstract now appearing in the currently filed specification:

ABSTRACT OF THE DISCLOSURE

A solid state compact ion gauge includes an electron source, a gate electrode, an electron collector~~an inlet~~, a gas ionizer, an ion anode, and a detector all formed within a cavity of in a semiconductor substrate formed of two halves bonded together and having open sides for receiving a gase sample~~The gas ionizer can be a solid state electron emitter with ion optics provided by electrodes formed in the cavity through which the cavity is evacuated by differential pumping. Preferably, the substrate is formed in two halves. The substrate halves are then bonded together after the components are provided therein.~~ A sample of gas having multiple gas constituents flows into the cavity from the side where gas molecules collide with electrons flowing from the source to the collector forming ions. The ions are forced under an electric field to the detector which includes a set of detectors for sensing the constituent ions.